

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>		
		Application Number	10/551,895	
		Filing Date	2004-04-06	
		First Named Inventor	PROCTOR JR., James A.,	
		Art Unit	2618	
		Examiner Name	MILORD, Marceau	
Sheet	1	of	6	Attorney Docket No: 080591

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ^{2,3} (known)			
	001	US5095528	03-10-1992	LESLIE; Samuel A., et al.	
	002	US5767788	06-16-1998	NESS; James C.	
	003	US6539028	03-25-2003	SOH; Kok Hong, et al.	
	004	US6549542	04-15-2003	DONG; Sung-Soo, et al.	
	005	US6563468	05-13-2003	HILL; Robert, et al.	
	006	US6664932	12-16-2003	SABET; Kazem F., et al.	
	007	US6694125	02-17-2004	WHITE; Stanley A., et al.	
	008	US6766113	07-20-2004	AL-SALAMEH; Daniel Y., et al.	
	009	US6788256	09-07-2004	HOLLISTER; John E.	
	010	US7043203	05-09-2006	MIQUEL; Xavier Barba, et al.	
	011	US7123670	10-17-2006	GILBERT; Jeffrey M., et al.	
	012	US7133460	11-07-2006	BAE; Sang-Min, et al.	
	013	US7457587	11-25-2008	CHUNG; Hee-Sok	
	014	US20010040699	11-15-2001	OSAWA; Hidefumi, et al.	
	015	US20010050580	12-13-2001	O'toole; James E., et al.	
	016	US20010050906	12-13-2001	ODENWALDER; Joseph P., et al.	
	017	US20020004924	01-10-2002	KIM; Min-Koo, et al.	
	018	US20020034958	03-21-2002	OBERSCHMIDT; Gerald, et al.	
	019	US20020119783	08-29-2002	BOURLAS; Yair, et al.	

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				<i>Complete if Known</i>		
				Application Number	10/551,895	
				Filing Date	2004-04-06	
				First Named Inventor	PROCTOR JR.; James A.,	
				Art Unit	2618	
				Examiner Name	MILORD, Marceau	
Sheet	2	of	6	Attorney Docket No: 080591		

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	020	US20020159506	10-31-2002	ALAMOUTI; Siavash, et al.	
	021	US20030211828	11-13-2003	DALGLEISH; Robert, et al.	
	022	US20040056802	03-25-2004	HOLLISTER; John E.	
	023	US20040208258	10-21-2004	LOZANO; Angel, et al.	
	024	US20040235417	11-25-2004	DEAN; Richard F.	
	025	US20040248581	12-09-2004	SEKI; Hiroyuki, et al.	
	026	US20060028388	02-09-2006	SCHANTZ; Hans Gregory	

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ -Number ⁴ -Kind Code ⁵ (if known)				
	027	JP05063623	03-12-1993	NEC CORP.		<input checked="" type="checkbox"/>
	028	JP06334577	12-02-1994	NIPPON TELEGRAPH & TELEPHONE.		<input checked="" type="checkbox"/>
	029	JP07030473	01-31-1995	NIPPON TELEGRAPH & TELEPHONE.		<input checked="" type="checkbox"/>
	030	JP07079205	03-20-1995	NIPPON TELEGRAPH & TELEPHONE.		<input checked="" type="checkbox"/>
	031	JP10135892	05-22-1998	MITSUBISHI ELECTRIC CORP.		<input checked="" type="checkbox"/>
	032	JP11055713	02-26-1999	MATSUSHITA ELECTRIC IND CO LTD.		<input checked="" type="checkbox"/>
	033	JP11127104	05-11-1999	MATSUSHITA ELECTRIC		<input checked="" type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.19 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>				<i>Complete if Known</i>		
				Application Number	10/551,895	
				Filing Date	2004-04-06	
				First Named Inventor	PROCTOR JR., James A.,	
				Art Unit	2618	
				Examiner Name	MILORD, Marceau	
Sheet	3	of	6	Attorney Docket No: 080591		

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T 6
		Country Code ² - Number ³ -Kind Code ⁵ (if known)				
				IND CO LTD.		
	034	JP2000031877	01-28-2000	SHARP CORP.		<input checked="" type="checkbox"/>
	035	JP2000236290A	08-29-2000	NIPPON ELECTRIC ENG.		<input type="checkbox"/>
	036	JP2000269873	09-29-2000	KOKUSAI ELECTRIC CO LTD.		<input checked="" type="checkbox"/>
	037	JP2001244864A	09-07-2001	HITACHI LTD.		<input checked="" type="checkbox"/>
	038	JP2002033691	01-31-2002	SONY INT EUROP GMBH.		<input checked="" type="checkbox"/>
	039	JP2002271255A	09-20-2002	TOSHIBA DIGITAL MEDIA ENG.		<input type="checkbox"/>
	040	JP2003174394A	06-20-2003	HITACHI INT ELECTRIC INC.		<input type="checkbox"/>
	041	JP2004328666	11-18-2004	MATSUSHITA ELECTRIC WORKS LTD.		<input type="checkbox"/>
	042	JP2005531202	10-13-2005	WIDEFI, INC.		<input checked="" type="checkbox"/>
	043	JP2005531265	10-13-2005	QUALCOMM INC.		<input checked="" type="checkbox"/>
	044	JP2006503481	01-26-2006	QUALCOMM INCORPORATED.		<input checked="" type="checkbox"/>
	045	JP2006505146	02-09-2006	QUALCOMM INC [US]		<input checked="" type="checkbox"/>
	046	JP2100358A	04-12-1990	TOSHIBA CORP.		<input type="checkbox"/>
	047	JP3021884A	01-30-1991	MITSUBISHI ELECTRIC CORP.		<input type="checkbox"/>
	048	JP6013947A	01-21-1994	NEC CORP.		<input type="checkbox"/>
	049	JP62040895	02-21-1987	TOSHIBA CORP.		<input checked="" type="checkbox"/>
	050	JP64011428	01-17-1989	TOYO COMMUN EQUIP CO LTD.		<input checked="" type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO		<i>Complete if Known</i>		
INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Use as many sheets as necessary)		Application Number	10/551,895	
		Filing Date	2004-04-06	
		First Named Inventor	PROCTOR JR., James A.,	
		Art Unit	2618	
		Examiner Name	MILORD, Marceau	
Sheet	4	of	6	Attorney Docket No: 080591

FOREIGN PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ -Kind Code ⁵ (if known)				
	051	JP8274706A	10-18-1996	KYOCERA CORP.		<input type="checkbox"/>
	052	KR100610929	08-10-2006	SAMSUNG THALES CO LTD [KR]		<input checked="" type="checkbox"/>
	053	RU2120702C1	10-20-1998	BRITISH TELEKOMM'JUNIKEJSHN Z PABLIK LIMITED KOMPAN.		<input checked="" type="checkbox"/>
	054	WO0152447	07-19-2001	ANDREW CORPORATION [US]		<input type="checkbox"/>
	055	WO0182512A1	11-01-2001	KOREA TELECOM FRETEL CO., LTD. [KR]		<input type="checkbox"/>
	056	WO03013005A2	02-13-2003	SPOTWAVE WIRELESS INC [CA]		<input type="checkbox"/>
	057	WO05115022	12-01-2005	WIDEFI, INC.		<input type="checkbox"/>
	058	WO2004002014	12-31-2003	QUALCOMM INC.		<input type="checkbox"/>
	059	WO2004004365A2	01-08-2004	QUALCOMM INC.		<input type="checkbox"/>
	060	WO9959264A2	11-18-1999	NOKIA NETWORKS OY [FI]		<input type="checkbox"/>

NON PATENT LITERATURE DOCUMENTS				
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		T2
	061	Translation of Office Action in Japanese application 2004-515701, corresponding to US application 10/516,327, citing WO00050971, JP2000-031877, JP2002-033691, JP2002-111571 and JP11-127104. Dated 2010-05-25 (080583JP).		<input type="checkbox"/>
	062	Translation of Office Action in Japanese application 2004-544751, corresponding to US application 10/531,078, citing WO00050971, JP2002-111571, JP05-102907, JP63-		<input type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST 16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.86. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449/PTO INFORMATION DISCLOSURE STATEMENT BY APPLICANT <i>(Use as many sheets as necessary)</i>		<i>Complete if Known</i>		
		Application Number	10/551,895	
		Filing Date	2004-04-06	
		First Named Inventor	PROCTOR JR., James A.,	
		Art Unit	2618	
		Examiner Name	MILORD, Marceau	
Sheet	5	of	6	Attorney Docket No: 080591

NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T2
		160442, JP2000-502218, JP10-032557 and JP2000-082983. Dated 2009-08-25 (080590JP).	
	063	Translation of Office Action in Japanese application 2004-553510, corresponding to US application 10/533,589, citing W000050971, JP09-182155, JP64-011428 and JP62-040895. Dated 2009-09-29 (080588JP).	<input type="checkbox"/>
	064	Translation of Office Action in Japanese application 2004-565505, corresponding to US application 10/563,471, citing JP08-097762 and JP2001-111575. Dated 2009-08-11 (080589JP).	<input type="checkbox"/>
	065	Translation of Office Action in Japanese application 2004-565505, corresponding to US application 10/563,471, citing JP08-097762, JP2001-111575, JP09-018484 and JP11-055713. Dated 2010-09-14 (080589JP).	<input type="checkbox"/>
	066	Translation of Office Action in Japanese application 2004-565505, corresponding to US application 10/563,471, citing JP09-018484. Dated 2010-02-23 (080589JP).	<input type="checkbox"/>
	067	Translation of Office Action in Japanese application 2009-503041, corresponding to US application 11/730,361, citing W005115022, JP10-135892, JP2005-531265, 2006-503481, JP2005-531202 AND JP2006-505146. Dated 2010-10-26 (080600JP).	<input type="checkbox"/>
	068	Translation of Office Action in Korean application 2008-7026775, corresponding to US application 11/730,361, citing KR100610929 Dated 2010-08-30 (080600KR).	<input type="checkbox"/>
	069	Translation of Office Action in Korean application 2009-7010639, corresponding to US application 12/439,018, citing WO01052447 and US20040208258 Dated 2010-11-15 (080608KR).	<input type="checkbox"/>

EXAMINER SIGNATURE

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. ¹ Applicant's unique citation designation number (optional). ² See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³ Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴ For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵ Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶ Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 (1-800-786-9199) and select option 2.